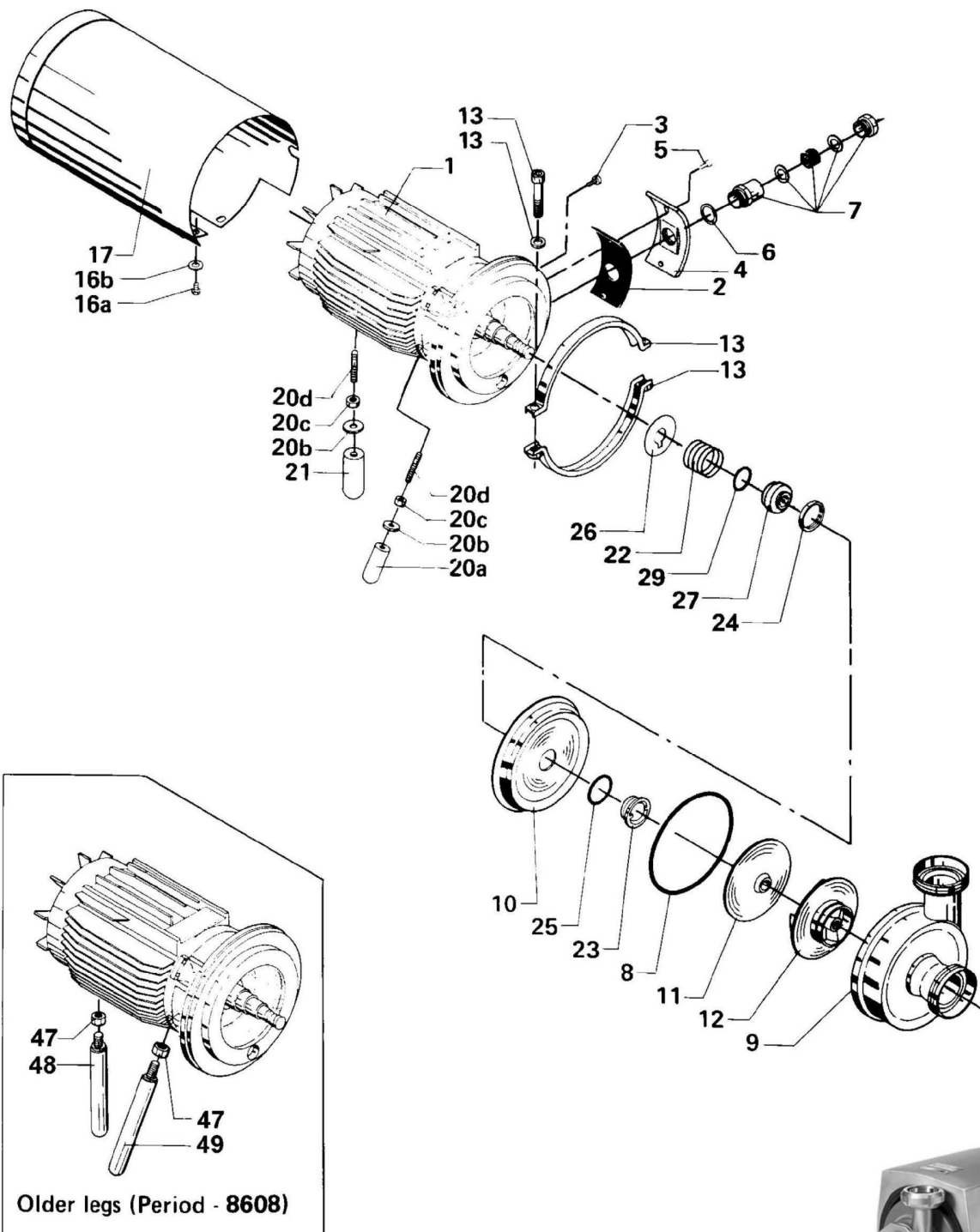


Centrifugal Pumps – Single Shaft Seal Types FM-1A & FM-2A



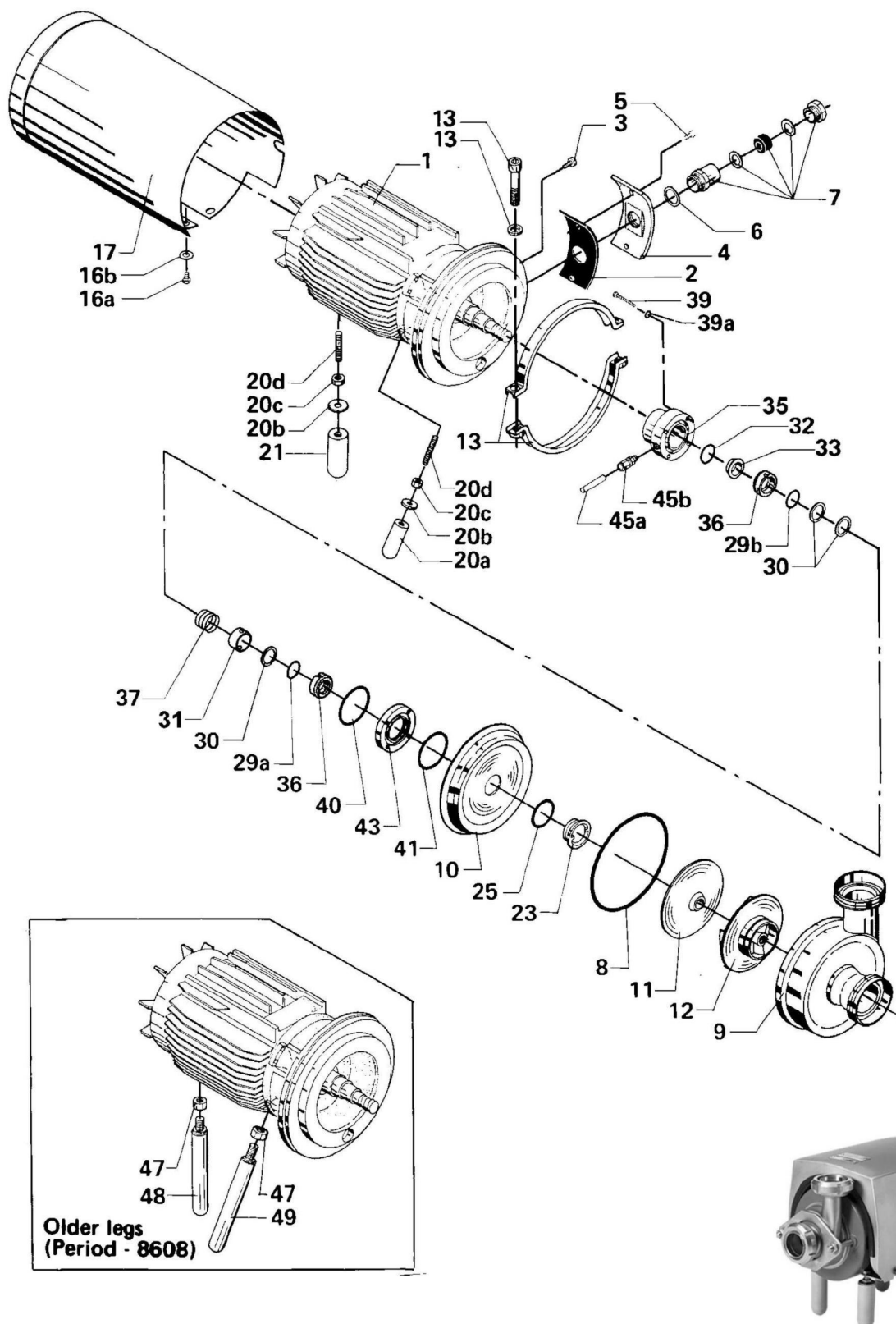
Centrifugal Pumps – Single Shaft Seal Types FM-1A & FM-2A



Pos. Qty. Denomination	FM-1A/2A	Pos. Qty. Denomination	FM-1A/A2	Pos. Qty. Denomination	FM-1A/A2
2 1 Packing	31439-0015-1	Δ Shaft seal, complete, NBR (Standard) ..	9612-4392-01	Accessories (delivered with every new pump)	
3 1 Set screw for earth wire	221533-02	22 1 Spring	31438-0057-1	1 Spanner for impeller	31439-0104-1
4 1 Cover	31439-0007-1	23 1 Stationary seal ring SiC.	31437-0225-1		
5 2 Screw	221125-22	25 1 Seal	31437-0121-1		
6 1 Packing	31439-0049-1	27 1 Rotating seal ring	31439-0165-1		
7 1 Compression gland, 22.5 mm	31801-0154-4	29 1 O-ring	31439-0168-1		
10 1 Back plate	31439-0101-1				
11 1 Impeller cover	31439-0099-1	Δ Shaft seal, complete, EPDM	9612-4392-03		
13 1 Clamp set	9611-92-1001	22 1 Spring	31438-0057-1		
16a 4 Screw	2210938-23	23 1 Stationary seal ring SiC.	31437-0225-1		
16b 4 Washer	9611-99-1831	25 1 Seal	31437-0121-3		
17 1 Shroud	31439-0169-1	27 1 Rotating seal ring	31439-0165-1		
20a 2 Front leg	31460-1248-1	29 1 O-ring	31439-0168-4		
20b 3 Washer	31460-0104-1				
20c 3 Nut	9611-99-1829	Δ Shaft seal, complete, FPM	9612-4392-04		
20d 3 Stud bolt	31458-0077-1	22 1 Spring	31438-0057-1		
21 1 Back leg	31460-1248-3	23 1 Stationary seal ring SiC.	31437-0225-1		
24 1 Nut	31437-0120-1	25 1 Seal	31437-0121-3		
26 1 Thrower	31439-0037-1	27 1 Rotating seal ring	31439-0165-1		
		29 1 O-ring	31439-0168-5		
Other parts	(Period From 8608) (Period to 8608)	Δ Shaft seal, complete, PTFE	9612-4392-02		
Pos. Qty. Denomination	FM-1A FM-1A	22 1 Spring	31438-0057-1		
1 1 Motor 3 kW 220/380 V	31439-0190-1 31439-0181-1	23 1 Stationary seal ring SiC.	31437-0225-1		
1 1 Motor 3 kW 230-260/400-440 V	31439-0190-2 31439-0181-2	25 1 Seal	31437-0121-3		
1 1 Motor 3 kW 380/660 V	31439-0190-3 31439-0181-3	27 1 Rotating seal ring	31439-0165-1		
		29 1 O-ring	31439-0168-3		
	(Period From 8608) (Period to 8608)	Alternatives			
Pos. Qty. Denomination	FM-2A FM-2A	Shaft seal, complete, NBR (Standard) ..	9612-4392-05		
1 1 Motor 4 kW 220/380 V	31455-0046-1 31455-0043-1	22 1 Spring	31438-0057-1		
1 1 Motor 4 kW 230-260/400-440 V	31455-0046-2 31455-0043-2	23 1 Stationary seal ring SiC.	31437-0225-1		
1 1 Motor 4 kW 380/660 V	31455-0046-3 31455-0043-3	25 1 Seal	31437-0121-1		
		27 1 Rotating seal ring SiC.	31439-0165-4		
		29 1 O-ring	31439-0168-1		
Pos. Qty. Denomination	FM-1A FM-2A	Shaft seal, complete, EPDM	9612-4392-07		
1 1 Fan	31437-0208-2 31437-0208-2	22 1 Spring	31438-0057-1		
1 1 Rotor with shaft	31439-0182-1 31455-0044-1	23 1 Stationary seal ring SiC.	31437-0225-1		
8Δ 1 O-ring, NBR (Standard)	31439-0112-1 31455-0008-1	25 1 Seal	31437-0121-3		
1 O-ring, EPDM	31439-0112-4 31455-0008-4	27 1 Rotating seal ring SiC.	31439-0165-4		
1 O-ring, FPM	31439-0112-5 31455-0008-5	29 1 O-ring	31439-0168-4		
1 O-ring, PTFE	31439-0112-3 31455-0008-3				
9 1 Pump casing with sanitary fittings.		Shaft seal, complete, FPM	9612-4392-08		
FM-1A, 51 mm inlet and outlet		22 1 Spring	31438-0057-1		
FM-2A, 63.5 mm inlet and outlet		23 1 Stationary seal ring SiC.	31437-0225-1		
ISO male	31439-0176-1 31455-0041-1	25 1 Seal	31437-0121-3		
SMS	31439-0176-2 31455-0041-2	27 1 Rotating seal ring SiC.	31439-0165-4		
DIN	31439-0176-3 31455-0041-3	29 1 O-ring	31439-0168-5		
ISO clamp	31439-0176-4 31455-0041-4				
BS	31439-0176-5 31455-0041-5	Shaft seal, complete, PTFE	9612-4392-06		
12* 1 Impeller (ø165)	31439-0097-1 31455-0010-1	22 1 Spring	31438-0057-1		
		23 1 Stationary seal ring SiC.	31437-0225-1		
		25 1 Seal	31437-0121-3		
		27 1 Rotating seal ring SiC.	31439-0165-4		
		29 1 O-ring	31439-0168-3		
Δ Service kit, NBR	9611-92-1058 9611-92-1062				
Δ Service kit, EPDM	9611-92-1059 9611-92-1063				
Δ Service kit, FPM	9611-92-1060 9611-92-1064				
Δ Service kit, PTFE	9611-92-1061 9611-92-1065				

Parts marked with Δ are included in the Service kits.

Centrifugal Pumps – Flushed Shaft Seal Types FM-1A & FM-2A



Centrifugal Pumps – Flushed Shaft Seal Types FM-1A & FM-2A



Pos.	Qty.	Denomination	FM-1A/FM-2A
2	1	Packing	31439-0015-1
3	1	Set screw for earth wire	221533-02
4	1	Cover	31439-0007-1
5	2	Screw	221125-22
6	1	Packing	31439-0049-1
7	1	Compression gland, 22.5 mm	31801-0154-4
10	1	Back plate	31439-0101-1
11	1	Impeller cover	31439-0099-1
13	1	Clamp set	9611-92-1001
16a	4	Screw	2210938-23
16b	4	Washer	9611-99-1831
17	1	Shroud	31439-0169-1
20a	2	Front leg	31460-1248-1
20b	3	Washer	31460-0104-1
20c	3	Nut	9611-99-1829
20d	3	Stud bolt	31458-0077-1
21	1	Back leg	31460-1248-3
35	1	Seal housing	31439-0114-1
39	4	Screw	9611-99-0208
39a	4	Washer	9611-99-0800
43	1	Fastening ring	31439-0113-1
45a	2	Flushing tube	31439-0122-5
45b	2	Fitting	2525524-02
46	1	Assembly mandrel(not shown)	31439-0118-1

Pos.	Qty.	Denomination	(Period From 8608) FM-1A	(Period to 8608) FM-1A
1	1	Motor 3 kW 220/380 V	31439-0189-1	31439-0188-1
	1	Motor 3 kW 230-260/400-440 V	31439-0189-2	31439-0188-2
	1	Motor 3 kW 380/660 V	31439-0189-3	31439-0188-3

Pos.	Qty.	Denomination	(Period From 8608) FM-2A	(Period to 8608) FM-2A
1	1	Motor 4 kW 220/380 V	31455-0073-1	31455-0072-1
1	1	Motor 4 kW 230-260/400-440 V	31455-0073-2	31455-0072-2
1	1	Motor 4 kW 380/660 V	31455-0073-3	31455-0072-3

Pos.	Qty.	Denomination	FM-1A	FM-2A
1	1	Fan	31437-0208-2	31437-0208-2
1	1	Rotor with shaft	31439-0182-3	31455-0044-3
8Δ	1	O-ring, NBR (Standard)	31439-0112-1	31455-0008-1
1	1	O-ring, EPDM	31439-0112-4	31455-0008-4
1	1	O-ring, FPM	31439-0112-5	31455-0008-5
1	1	O-ring, PTFE	31439-0112-3	31455-0008-3
9	1	Pump casing with sanitary fittings. FM-1A, 51 mm inlet and outlet FM-2A, 63.5 mm inlet and outlet		
		ISO male	31439-0176-1	31455-0041-1
		SMS	31439-0176-2	31455-0041-2
		DIN	31439-0176-3	31455-0041-3
		ISO clamp	31439-0176-4	31455-0041-4
		BS	31439-0176-5	31455-0041-5
12*	1	Impeller (ø165)	31439-0097-1	31455-0010-1

Δ	Service kit, NBR	9611-92-1066	9611-92-1070
Δ	Service kit, EPDM	9611-92-1067	9611-92-1071
Δ	Service kit, FPM	9611-92-1068	9611-92-1072
Δ	Service kit, PTFE	9611-92-1069	9611-92-1073

Pos.	Qty.	Denomination	FM-1A/FM-2A
Δ	Shaft seal, complete, NBR (Standard)	9612-4393-01	
23	1	Stationary seal ring SiC	31437-0225-1
25	1	Seal	31437-0121-1
29a	1	O-ring, front	31439-0168-1
29b	1	O-ring, back	31439-0168-1
30	3	Washer	104125
31	1	Spacer	31437-0212-1
32	1	O-ring	223406-51
33	1	Stationary seal ring	31450-0007-1
36	2	Rotating seal ring	31437-0211-1
37	1	Spring	104154
40	1	O-ring	223406-60
41	1	O-ring	223406-58

Pos.	Qty.	Denomination	FM-1A/FM-2A
Δ	Shaft seal, complete, EPDM	9612-4393-03	
23	1	Stationary seal ring SiC	31437-0225-1
25	1	Seal	31437-0121-3
29a	1	O-ring, front	31439-0168-4
29b	1	O-ring, back	31439-0168-4
30	3	Washer	104125
31	1	Spacer	31437-0212-1
32	1	O-ring	223406-51
33	1	Stationary seal ring	31450-0007-1
36	2	Rotating seal ring	31437-0211-1
37	1	Spring	104154
40	1	O-ring	223406-60
41	1	O-ring	223406-58

Pos.	Qty.	Denomination	FM-1A/FM-2A
Δ	Shaft seal, complete, FPM	9612-4393-04	
23	1	Stationary seal ring SiC	31437-0225-1
25	1	Seal	31437-0121-3
29a	1	O-ring, front	31439-0168-5
29b	1	O-ring, back	31439-0168-5
30	3	Washer	104125
31	1	Spacer	31437-0212-1
32	1	O-ring	223406-51
33	1	Stationary seal ring	31450-0007-1
36	2	Rotating seal ring	31437-0211-1
37	1	Spring	104154
40	1	O-ring	223406-60
41	1	O-ring	223406-58

Pos.	Qty.	Denomination	FM-1A/FM-2A
Δ	Shaft seal, complete, PTFE	9612-4393-02	
23	1	Stationary seal ring SiC	31437-0225-1
25	1	Seal	31437-0121-3
29a	1	O-ring, front	31439-0168-3
29b	1	O-ring, back	31439-0168-1
30	3	Washer	104125
31	1	Spacer	31437-0212-1
32	1	O-ring	223406-51
33	1	Stationary seal ring	31450-0007-1
36	2	Rotating seal ring	31437-0211-1
37	1	Spring	104154
40	1	O-ring	223406-60
41	1	O-ring	223406-58

Pos.	Qty.	Denomination	FM-1A/FM-2A
Alternatives			
Shaft seal, complete, NBR (Standard)	9612-4393-05		
23	1	Stationary seal ring SiC	31437-0225-1
25	1	Seal	31437-0121-1
29a	1	O-ring, front	31439-0168-1
29b	1	O-ring, back	31439-0168-1
30	3	Washer	104125
31	1	Spacer	31437-0212-1
32	1	O-ring	223406-51
33	1	Stationary seal ring	31450-0007-1
36a	1	Rotating seal ring SiC	31437-0211-4
36b	1	Rotating seal ring	31437-0211-1
37	1	Spring	104154
40	1	O-ring	223406-60
41	1	O-ring	223406-58

Pos.	Qty.	Denomination	FM-1A/FM-2A
Shaft seal, complete, EPDM	9612-4393-07		
23	1	Stationary seal ring SiC	31437-0225-1
25	1	Seal	31437-0121-3
29a	1	O-ring, front	31439-0168-4
29b	1	O-ring, back	31439-0168-4
30	3	Washer	104125
31	1	Spacer	31437-0212-1
32	1	O-ring	223406-51
33	1	Stationary seal ring	31450-0007-1
36a	1	Rotating seal ring SiC	31437-0211-4
36b	1	Rotating seal ring	31437-0211-1
37	1	Spring	104154
40	1	O-ring	223406-60
41	1	O-ring	223406-58

Pos.	Qty.	Denomination	FM-1A/FM-2A
Shaft seal, complete, FPM	9612-4393-08		
23	1	Stationary seal ring SiC	31437-0225-1
25	1	Seal	31437-0121-3
29a	1	O-ring, front	31439-0168-5
29b	1	O-ring, back	31439-0168-5
30	3	Washer	104125
31	1	Spacer	31437-0212-1
32	1	O-ring	223406-51
33	1	Stationary seal ring	31450-0007-1
36a	1	Rotating seal ring SiC	31437-0211-4
36b	1	Rotating seal ring	31437-0211-1
37	1	Spring	104154
40	1	O-ring	223406-60
41	1	O-ring	223406-58

Pos.	Qty.	Denomination	FM-1A/FM-2A
Shaft seal, complete, PTFE	9612-4393-06		
23	1	Stationary seal ring SiC	31437-0225-1
25	1	Seal	31437-0121-3
29a	1	O-ring, front	31439-0168-3
29b	1	O-ring, back	31439-0168-3
30	3	Washer	104125
31	1	Spacer	31437-0212-1
32	1	O-ring	223406-51
33	1	Stationary seal ring	31450-0007-1
36a	1	Rotating seal ring SiC	31437-0211-4
36b	1	Rotating seal ring	31437-0211-1
37	1	Spring	104154
40	1	O-ring	223406-60
41	1	O-ring	223406-58

Older legs (Period -8608)			
47	3	Lock nut	2218043-18
48	1	Back leg	31439-0146-1
49	2	Front leg	31439-0146-2

Accessories (delivered with every new pump)		
1	Spanner for impeller	31439-0104-1